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GOVERNOR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

DAVID A. COLE

COMMISSIONER

November 19, 2004
Subject: Bethel
Project No. STP-1051(611)X
PIN 10516.11
Bid Amendment No. 1

Dear Sir/Ms.:

Please make the following changes to your bid documents:

On "Special Provision Section 504 Prefabrication Bridge Superstructure" make the following changes in pen and ink:

Delete Subsection **2.1.1** entitled **Weathering Steel** in its entirety, and replace with the following:

- 2.1.1 Weathering Steel.** All truss members shall be high strength, low alloy, atmospheric corrosion-resistant steel. The minimum steel thickness of all members shall be $\frac{1}{4}$ inch. Base metals not listed in AWS D1.1-2002 may be used provided all chemical and physical properties meet the minimum requirements of ASTM A588. Mill certification demonstrating this shall be provided on a per heat basis or lot basis. Dual certification of base metals, with at least one of which is a listed base metal in AWS D1.1-2002 is acceptable.

Modify Subsection **3.3.4** of Special Provision 504 by adding Parts C and D:

- C. Welding Procedure Qualification Requirements.** CVN tests of welding shall be included in the Procedure Qualification Record. The CVN test requirements and test procedures in AWS D1.1, Annex III shall apply. The Specified Test temperature is 0 deg F shall apply for base metal with specified minimum yield strengths of 50 ksi or less. For base metal with specified minimum yield strengths greater than 50 ksi the Specified Test Temperature is -40 degrees and the Minimum Average Absorbed Energy is 20 ft-lbs and Minimum Individual Absorbed Energy is 15 ft-lbs.
- D. Unlisted Base Metal Qualification.** If a base metal is not listed in AWS D1.1, Table 3.1, the base metal used in qualification shall have a material Carbon Equivalent value greater than or equal to the material Carbon Equivalent value that is to be used in production. Carbon Equivalent will be determined on a per heat or lot basis and using the formula in AWS D1.5, Subsection 5.4.2 (1).



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Add the following Subsection **3.4.2.1** after Subsection **3.4.2 Shop Fabrication**:

3.4.2.1 The Department intends to inspect the work. The contractor must notify the Department when work is ready for inspection at designated hold points during production. The following hold points will require a minimum prior notice of 48 hours (2 business days) to schedule inspection.

- Material verification – No work shall be done, including cleaning, cutting, or preparing materials to be incorporated in the prefabricated bridge until it has been inspected by the Department.
- Joint fit of complete joint penetration welds on main members.
- Non-destructive testing of welds.
- Prior to welding diagonals, verticals, end posts, lateral bracing, stiffeners, connection plates, as applicable.
- Final surface preparation (may be earlier in the process).
- Main member fabrication and fit-up of the bolted splices.
- Final evaluation prior to shipment.
- Full assembly of the completed structure. The Contractor shall fully assemble the completed structure in the shop prior to shipping.

The Contractor is responsible to provide and document prior notice for all listed items. The Contractor may proceed with scheduled work if inspection, by the Department is not performed within the 48 hours after receipt of notice.

The Department has received the following request for information:

Q) In section 504 “Prefabrication Bridge Superstructure”, on page 1 of 8, section 2.1.1 Weathering Steel, The base metal is called out as having a minimum Carbon Equivalent of 0.45% and a maximum Carbon content of 0.20%. In referring to AWS under A588 material, it appears that the Carbon Equivalent should be a minimum of 0.45% not a maximum. Please clarify.

R) Please see new changes to “Special Provision Section 504 Prefabricated Bridge Superstructure” subsection 2.1.1 as referenced in this amendment.

Q) In section 3.3.1.6 **Fatigue**, the allowable fatigue stress is to be utilized based on a 100,000 cycles. What load combinations do you want the 100,000 cycles applied to?

R) “The allowable fatigue stress shall be applied to any load combinations that contains Wind Load or non-pedestrian Live Load.”

Q) Could additional design criteria be provided for the exterior mounted pickets (pales) system? Would interior mounted pickets be acceptable?

R) Bridge railing, including pickets or pales, shall be designed as Pedestrian Railing in accordance with the AASHTO Standard Specifications for Highway Bridges. The mounting location of the pickets may be left to the discretion of the fabricator, provided no part of the pickets extend beyond the face of the rub rails or toe plates, and the entire railing system still meets AASHTO and ADA requirements.

Q) Is the sacrificed wear surface expected to be CCA “treated” Hemlock?

R) The sacrificial wearing surface shall be untreated No. 2 Hemlock planks.

Q) Are the rub rails and toe plates to be Southern Yellow Pine or Hemlock?

R) The rub rails and the toe plates shall have the same material requirements and treatments as the permanent wood decking as specified herein. The permanent wood decking shall be treated to AWWA Standards with CCA to a total absorption of 1.0 pound per cubic foot.

Q) Is this project tax exempt or tax inclusive?

R) Please refer to the “State of Maine, Department of Transportation Standard Specification book, Revision of December 2002.”

Q) SP 505, Section 3.3.1.6 states to use a load combination using the design snow load of 1.0S. Normally, this load would be 0.8S as the ground snow load is not achievable on a bridge. The relatively open framework combined with the exposure conditions over a river would typically not require such an onerous loading condition. Since this will become the critical design load condition, the cost of the bridge will be affected negatively.

R) The design snow load shown in Special Provision 504 Section 3.3.1.6 is to be used.

Q) Sheet 4 of 33 of the Contract Drawings shows a skew to the bridge pier and abutments. Since pedestrian bridges are generally quite narrow (say 11-12ft. c/c of truss)

1. Could the bridge bearings be offset at the piers about 9" either way of the centerline. Also, abutments would be squared to the bridge centerline.
2. Could the piers and abutments be squared to the centerline (8 degrees rotation) to square to the bridge centerline? Since the pier is already designed for a 30% transverse force the impact would be negligible to the pier design. Offset trusses will induce out of place forces in the verticals of the pony truss and add unnecessary cost to the bridge through additional materials, and through detailing and fabrication of the floor beams and deck to match the skew.

R) The project shall be bid as per the plans and specifications.

Consider these changes and information prior to submitting your bid on December 8, 2004.

Sincerely,



Scott Bickford
Contracts & Specifications Engineer